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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,998	10/12/2004	Kim Choate	130273-10	6698

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EXAMINER	
SANDERS, KRIELLION ANTIONETTE	
ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/510,998	CHOATE ET AL.	
	Examiner	Art Unit	
	Kriellion A. Sanders	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/12/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 28 is rejected under 35, second paragraph.

2. The claims are indefinite in their definition of componentA when the component consists of one or more kinds of copolymerized polyesters having polyalkylene terephthalate and polyalkylene terephthalate as principal components. The components are redundant. Therefore, It is not clear what applicant considers this aspect of the invention to be.

3. Claim 28, line 1 "further comprising" is repeated.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 11-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0418719 taken with Senga et al., US Patent No. 5,856,403.

4. EP 0418719 discloses thermoplastic molding compositions which may comprise a polyetherimide, a polyarylether sulphide or mixtures of these polymers. The composition may further include 3-40% by weight of glass fibers and 3-25% by weight of an alkaline earth metal

carbonate salt. The patented invention differs from applicant's in that it does not include a nonfibrous inorganic filler. See the English abstract of this document.

Senga et al., US Patent No. 5,856,403 discloses a process for efficiently manufacturing polyarylene sulfide copolymer. The resin composition of the invention may contain an inorganic or organic filler. in said copolymer. And either a single filler or a mixture of two or more fillers may be used. Suitable fillers may be either in the form of fiber or may take a non-fibrous form. Specifically, depending on the purpose for obtaining the molded products with excellent mechanical properties, heat resistance, dimensional stability (stability against deformation and warping), electrical properties, and the like, fillers in the form of fiber, powders, particles, or plates can be used. Suitable examples of fibrous fillers include inorganic fibrous materials, such as ***glass fiber,*** asbestos fiber, carbon fiber, silica fiber, silica-alumina fiber, zirconia fiber, boron nitride fiber, silicon nitride fiber, boron fiber, potassium titanate fiber, and metal fibers such as stainless fiber, aluminum fiber, titanium fiber, copper fiber, and bronze fiber. ***Glass fiber*** and carbon fiber are typical fibrous fillers. Beside these fibrous fillers high melting point organic fibrous materials such as aromatic polyamide, fluorine resins, and acrylic resins can be used. Suitable examples of powdery or particle fillers are carbon black, molten or crystalline silica, quartz powder, glass beads, glass powder, silicates such as calcium silicate, aluminum silicate, kaolin, talc, clay, diatomaceous earth, and wallusnite; metal oxides such as iron oxide, titanium oxide, zinc oxide, and alumina; metal carbonates such as calcium carbonate and magnesium carbonate; metal sulfates such as calcium sulfate and barium sulfate; silicon carbide, boron nitride, and various metal powders. Mica, ***glass flakes,*** and various metallic foils are given as examples of plate-like fillers. These inorganic fillers may be used either individually or in

combination of two or more. **The combination of a fibrous filler, particularly *glass fiber* or carbon fiber, and a particulate filler and/or a plate-like filler is preferred for providing both the mechanical strength and other characteristics such as dimensional precision, electrical characteristics, and the like.** As required, it is desirable to use a converging agent or a surface treatment agent together with these fillers. Functional compounds such as epoxy compounds, isocyanate compounds, silane compounds, and titanate compounds are given as examples of the converging agent or the surface treatment agent. In the resin composition of the invention, it is possible to use a small amount of other thermoplastic resins as the base polymer together with the PAS (A) to the extent that the purpose of the present invention is not interfered. Any thermoplastic resin which is stable at high temperatures may be used as the other thermoplastic resin. The examples include aromatic polyester resins made from aromatic dicarboxylic acid, such as polyethylene terephthalate or polybutylene terephthalate, and a diol or an oxycarboxylic acid; polyamide resins, such as Nylon 6, Nylon 6-6, Nylon 6-10, Nylon 12, and Nylon 46; olefin resins containing olefins such as ethylene, propylene, and butene as the major component; styrene resins such as polystyrene, polystyrene-acrylonitrile, ABS resin; polycarbonate, polyphenylene oxide, polyalkylacrylate, polyacetal, polysulfone, polyether sulfone, ***polyether imide,*** polyether ketone, fluorine resin, and the like. These thermoplastic resins may be used either individually or in combination of two or more of them. See col. 5, line 63 through col. 7, line 23.

5. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine polyarylene sulphide and polyether imide resins in conjunction with a fibrous and non-fibrous filler with the expectation of achieving appreciable properties in

mechanical strength, dimensional precision and good electrical characteristics absent a clear showing of unexpected results attributable to the combination of fillers employed. It also would have been obvious to select the most appropriate physical proportions for both fibrous and non-fibrous fillers, including length and diameter to derive the most beneficial results. Since the components of the patented inventions are essentially the same as applicant's, it is believed that the most optimal heat deflection temperatures and linear expansion coefficients would be derived by including the combination of of fibrous and non-fibrous fillers suggested by Senga et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 703-308-2435. The examiner can normally be reached on Monday through Thursday 6:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2351.

Kriellion A. Sanders
Primary Examiner
Art Unit 1714

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July 5, 2005